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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,128	03/08/2001	Dale E. Wright	2479.2049-000	5572
21005	7590	12/02/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			PHUNKULH, BOB A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/802,128	<b>Applicant(s)</b> WRIGHT ET AL.	
	<b>Examiner</b> Bob A. Phunkulh	<b>Art Unit</b> 2661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/24/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by *Averbuch et al.* (US 5530693), hereinafter *Averbuch*.

Regarding claim 1, *Averbuch* discloses for use in a data communication network including a wireless link for the transfer of data packets from a first machine to a second machine, the wireless link having a multitude of base stations which may be selectively designated to receive data packets from the first machine and a subscriber unit connected to the second machine for receiving data packets from a selectable one of the base stations, a method of maintaining data throughput during a handoff from a first one of the base stations to a second one of the base stations as requested by the subscriber unit, which comprises the steps of:

uniquely designating only the first and second base stations for simultaneous receipt of the data packets from the first machine in response to the handoff request (receiving and store data packet at serving site and neighboring base sites, see step 403 of figure 4);

storing the data packets received by the second base station after such handoff request but before handoff is executed (receiving and store data packet at serving site and neighboring base sites, see step 403 of figure 4); and

forwarding a selected subset of the stored data packets to the subscriber unit after handoff is executed (see col. 8 lines 1-14).

Regarding claim 2, *Averbuch* inherently discloses discontinuing the designation of the first base station to receive data packets from the first machine after handoff is executed (when the handoff is completed the original serving site will no longer receives the data packets, see col. 8 lines 1-14 and figure 4).

Regarding claim 3, *Averbuch* discloses the data communications network is adapted to operate with the Mobile IP protocol, and in which the designating step comprises registering the first and second base stations as simultaneous Mobile IP bindings for the subscriber unit (see col. 3 lines 46-54).

Regarding claim 4, *Averbuch* discloses for use in a wireless communication link adapted to operate in accordance with the Mobile IP protocol and comprising, in combination, a subscriber unit constituting a Mobile IP mobile node (communication unit 109, see figure 2), a Mobile IP home agent associated with the mobile node's home network, and first and second base stations respectively associated with first and second Mobile IP foreign agents through which data packets may be selectively routed

Art Unit: 2661

from the home agent, the first foreign agent being initially registered with the home agent as a first mobility binding between the subscriber unit and the home agent, the subscriber unit receiving such data packets from a selected one of the first and second base stations, a method for maintaining data throughput during a handoff of the subscriber unit from the first base station to the second base station as requested by the subscriber unit, which comprises the steps of:

registering the second foreign agent as a second mobility binding between the subscriber unit and the home agent in response to the handoff request, the second mobility binding constituting a simultaneous binding with the first mobility binding to allow receipt of the data packets from the home agent by both the first and second foreign agents (one of the neighboring base site function as the second foreign agent, step 403 in figure 4; and step 503 in figure 5);

storing a sequence of data packets received by the second foreign agent from the home agent after such simultaneous binding registration but before handoff is executed (step 403 in figure 4; and step 503 in figure 5); and

forwarding the stored data packets to the subscriber unit via the second base station starting with a predetermined data packet in the stored sequence after handoff is executed (transmit second portion of packet to communication unit from target base site, see step 417, see figure 4).

Regarding claim 5, *Averbuch* discloses prior to the registration step for the second mobility binding, of transmitting a request from the subscriber unit to the home

Art Unit: 2661

agent to register the second foreign agent as the second mobility binding (see col. 4 lines 1-16).

Regarding claim 6, *Averbuch* inherently discloses the step of deregistering the mobility binding of the first foreign agent with the home agent after handoff is executed (when the handoff is completed the original serving site will no longer receives the data packets, see col. 8 lines 1-14 and figure 4).

Regarding claim 7, *Averbuch* discloses means associated with the subscriber unit for generating a handoff complete signal after handoff is executed, and means for applying the handoff complete signal to the first and second base stations (acknowledgement message, see step 413 figure 4).

Regarding claim 9, *Averbuch* discloses a wireless communication link adapted to operate in accordance with the Mobile IP protocol, the link having a mobile subscriber unit constituting a Mobile IP mobile node and in selective radio communication with first and second base stations for receiving data packets therefrom, the subscriber unit being adapted to generate a handoff request signal (mobile-assisted handoff (MAHO)), a handoff start signal and a handoff complete signal in connection with a handoff of the subscriber unit from the first base station to the second base station:

a Mobile IP home agent associated with the mobile node's home network;

first and second Mobile IP foreign agents respectively associated with the first and second base stations and through which data packets may be selectively routed from the home agent, the first foreign agent being registered before the handoff with the home agent as a first mobility binding between the subscriber unit and the home agent (see figure 1 and figure 4);

means responsive to the handoff request signal for registering the second foreign agent as a second mobility binding between the subscriber unit and the home agent, the second mobility binding constituting a simultaneous binding with the first mobility binding to allow receipt of the data packets from the home agent by both the first and second foreign agents (receive and store data packet at serving base site and neighboring base sites see step 403 of figure 4; and step 503 of figure 5);

means responsive to the handoff start signal for storing a sequence of data packets received by the second foreign agent from the home agent after such simultaneous binding registration (receive and store data packet at serving base site and neighboring base sites, see step 403 figure 4 and step 503 of figure 5); and

first means responsive to the handoff complete signal for forwarding the stored data packets to the subscriber unit via the second base station starting with a predetermined data packet in the stored sequence (transmit second portion of packet to the communication unit from target base site, see step 417 of figure 4).

Regarding claim 10, *Averbuch* discloses second means responsive to the handoff complete signal for de-registering the mobility binding of the first foreign agent

with the home agent (when the handoff is completed the original serving site will no longer receive the data packets, see col. 8 lines 1-14 and figure 4).

***Allowable Subject Matter***

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

**Any response to this action should be mailed to:**

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop \_\_\_\_\_  
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P. O. Box 1450  
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**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

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220 20<sup>th</sup> Street South  
Customer Window, Mail Stop \_\_\_\_\_  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor **Kenneth Vanderpuye**, can be reach on **(571) 272-3078**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Bob A. Phunkulh**



**BOB PHUNKULH  
PRIMARY EXAMINER**

TC 2600  
Art Unit 2661  
November 22, 2004